## Table S1: Definitions for various fruit and vegetable subgroups based on individual items in the SFFQs

Sub-groups	Individual foods
Total Fruits	Grapes (1/2 cup)/raisins (2 tbsps.), prunes (1/2 cup), bananas (1 small),
	cantaloupe/melon (1 cup), apples/pears (1), oranges (1 small), grapefruit
	(1/2), strawberries (1 <sup>1</sup> / <sub>4</sub> cup), blueberries (3/4 cup), peaches/plums/apricots
	(1/2 cup), watermelon(1 cup)*, apple sauce (1/2 cup)*
Total juice	Apple juice/cider (1/2 cup), orange juice (1/2 cup), grapefruit juice (1/2
-	cup)*, other fruit juices $(1/2 \text{ cup})$ , prune juice $(1/2 \text{ cup})$ *, tomatoe juice $(1/2 \text{ cup})$
	cup)
Total vegetables	Raw spinach (1 cup), cooked spinach ( $1/2$ cup), iceberg or head lettuce (1
	cup), romaine or leaf lettuce (1 cup), raw carrots (1 large), cooked carrots
	(1/2 cup), yams/sweet potatoes (cooked, 1/2 cup), winter squash (dark
	orange squash) (cooked, 1/2 cup), tomatoes (1 medium), tomato sauce (1/3
	cup), salsa (1/2 cup), broccoli (cooked, 1/2 cup), cabbage/Cole slaw
	(cooked, 1/2 cup), cauliflower (cooked, 1/2 cup), Brussels sprouts (cooked,
	1/2 cup), kale/mustard greens/chard (cooked, 1/2 cup), corn (cooked, 1/2
	cup), mixed vegetables (cooked, 1/2 cup), eggplant/zucchini/other summer
	squash (cooked, 1/2 cup), celery (1 cup), green pepper (1/2 cup)*, onion
	$(1/2 \text{ cup})^*$ , green beans $(1/2 \text{ cup})$ , peas $(1/2 \text{ cup})$ , mushroom*, beet
	(cooked, 1/2 cup)*, alfalfa sprouts (1 cup)*, sauerkraut (1/2 cup)*
Green leafy vegetables	Raw spinach, cooked spinach, iceberg or head lettuce, romaine or leaf
	lettuce
Yellow/orange vegetables	Raw carrots, cooked carrots, yams or sweet potatoes, winter squash
Tomato	Tomatoes, tomato sauce, salsa
Cruciferous vegetables	Broccoli, cabbage/Cole slaw, cauliflower, Brussels sprouts, kale/mustard
	greens/chard
Other vegetables	Corn, mixed vegetables, eggplant/zucchini/other summer squash , celery,
	green pepper*, onion*, green beans, peas, mushroom*, beet*, alfalfa
	sprouts*
Vitamin C rich fruits and vegetables	Cantaloupe, orange, grapefruit, strawberries, broccoli, cabbage/Cole slaw,
	cauliflower, Brussels sprouts, kale/mustard greens/chard, green peppers
Alpha carotene rich fruits and vegetables	Raw carrots, cooked carrots
Beta carotene rich fruits and vegetables	Raw carrots, cooked carrots, yams/ sweet potatoes, raw spinach, cooked
-	spinach, iceberg or head lettuce, romaine or leaf lettuce, kale/mustard
	greens/chard
Lutein rich fruits and vegetables	Raw spinach, cooked spinach, kale/mustard greens/chard

\*Data are not available in all SFFQs

Table S2: Hazard ratios and 95% confidence intervals of fruit and vegetable consumption in relation to incident invasive breast cancer among pre- and postmenopausal women in Nurses' Health Study and Nurses' Health Study II.

	Consumption Levels						
Total fruit and vegetable intake			•			Ptrend	
Amount of intake	≤2.5 servings/day	>2.5 to 3.5 servings/day	>3.5 to 4.5 servings/day	>4.5 to 5.5 servings/day	>5.5 servings/day		
Premenopausal breast cancer							
No. of cases/person-years in NHS	247/136,348	204/114,780	172/87,794	94/51,337	100/54,308		
No. of cases/person-years in NHSII	359/269,793	387/258,489	313/225,431	229/151,820	269/190,674		
Model 1	1	0.96 (0.86-1.08)	0.92 (0.82-1.04)	0.93 (0.81-1.06)	0.88 (0.77-1.01)	0.05	
Model 2	1	0.96 (0.85-1.08)	0.92 (0.81-1.05)	0.93 (0.80-1.07)	0.90 (0.77-1.04)	0.14	
Postmenopausal breast cancer							
No. of cases/person-years in NHS	951/272,216	1,379/385,808	1,512/403,944	1,173/302,989	1,378/374,719		
No. of cases/person-years in NHSII	232/98,455	245/117,923	255/115,032	206/84,179	247/112,937		
Model 1	1	0.96 (0.89-1.03)	0.99 (0.91-1.06)	1.01 (0.93-1.09)	0.94 (0.87-1.01)	0.28	
Model 2	1	0.92 (0.85-0.99)	0.93 (0.86-1.00)	0.94 (0.86-1.02)	0.87 (0.80-0.95)	0.01	
Total fruit intake							
Amount of intake	≤4 servings/week	>4 to 6 servings/week	>6 servings/week to 1.5	>1.5 to 2.5 servings/day	>2.5 servings/day		
			servings/day				
Premenopausal breast cancer							
No. of cases/person-years in NHS	188/106,631	124/65,782	233/129,032	212/100,671	60/42,451		
No. of cases/person-years in NHSII	394/295,605	280/191,165	491/339,128	307/208,905	85/61,405		
Model 1	1	1.00 (0.88-1.14)	0.94 (0.84-1.05)	1.00 (0.88-1.12)	0.83 (0.69-1.00)	0.13	
Model 2	1	1.02 (0.90-1.16)	0.96 (0.86-1.08)	1.03 (0.90-1.17)	0.86 (0.71-1.05)	0.35	
Postmenopausal breast cancer							
No. of cases/person-years in NHS	769/221,270	780/208,668	1,957/539,996	2,091/540,658	796/229,083		
No. of cases/person-years in NHSII	256/110,912	191/88,663	401/173,823	269/120,743	68/34,384		
Model 1	1	1.00 (0.92-1.10)	0.97 (0.90-1.04)	1.00 (0.93-1.08)	0.90 (0.82-0.99)	0.07	
Model 2	1	0.98 (0.89-1.07)	0.94 (0.87-1.01)	0.97 (0.90-1.05)	0.89 (0.81-0.99)	0.09	
Total vegetable intake							
Amount of intake	≤1.5 servings/day	>1.5 to 2.5 servings/day	>2.5 to 3.5 servings/day	>3.5 to 4.5 servings/day	>4.5 servings/day		
Premenopausal breast cancer		Ç .	<b>.</b>	Ç.,	· ·		
No. of cases/person-years in NHS	232/128,992	298/164,979	177/96,693	71/35,207	39/18,696		
No. of cases/person-years in NHSII	242/185,939	511/350,943	423/285,815	206/153.677	175/119,833		
Model 1	1	0.94 (0.84-1.06)	0.90 (0.79-1.02)	0.85 (0.73-0.99)	0.92 (0.78-1.08)	0.09	
Model 2	1	0.93 (0.83-1.05)	0.89 (0.78-1.02)	0.85 (0.72-1.00)	0.93 (0.77-1.11)	0.19	
Postmenopausal breast cancer	1	0.95 (0.05-1.05)	0.07 (0.76-1.02)	0.05 (0.72-1.00)	0.75 (0.77-1.11)	0.17	
No. of cases/person-years in NHS	829/245,423	2 100/590 255	2,015/516,687	921/248,460	520/120 750		
	,	2,100/589,355	, ,	,	528/139,750		
No. of cases/person-years in NHSII	154/66,358	345/156,586	320/149,047	207/86,747	159/69,787	0.6.1	
Model 1	1	0.98 (0.91-1.05)	1.03 (0.95-1.11)	0.98 (0.90-1.07)	0.99 (0.89-1.09)	0.94	
Model 2	1	0.92 (0.85-0.99)	0.94 (0.86-1.02)	0.89 (0.81-0.97)	0.89 (0.80-0.99)	0.05	

Fruit juice Intake						
Amount of intake	$\leq$ 1 serving/week	>1 to 4 servings/week	>4 to 6 servings/week	>6 servings/week to 1.5 servings/day	>1.5 servings/day	
Premenopausal breast cancer						
No. of cases/person-years in NHS	145/72,038	133/78,045	130/73,766	267/147,268	132/67,821	
No. of cases/person-years in NHSII	217/171,248	450/321,133	208/148,101	348/223,511	334/232,169	
Model 1	1	0.97 (0.84-1.10)	0.98 (0.84-1.14)	1.05 (0.92-1.20)	1.02 (0.89-1.18)	0.30
Model 2	1	0.96 (0.84-1.10)	0.98 (0.84-1.14)	1.04 (0.91-1.19)	1.00 (0.86-1.16)	0.48
Postmenopausal breast cancer						
No. of cases/person-years in NHS	593/179,990	1,283/352,998	945/254,723	1,842/518,752	1,715/424,624	
No. of cases/person-years in NHSII	161/78,030	361/164,869	186/77,468	249/111,445	228/96,709	
Model 1	1	1.03 (0.95-1.13)	1.08 (0.99-1.19)	1.03 (0.95-1.12)	1.12 (1.03-1.22)	0.01
Model 2	1	0.99 (0.91-1.08)	1.05 (0.95-1.15)	0.99 (0.91-1.08)	1.05 (0.96-1.15)	0.21

Model 1 stratified by cohort, calendar year, and age in months.

Model 2 stratified by cohort, calendar year, and age in months and adjusted for family history of breast cancer (yes, no), history of benign breast disease (yes, no), height (<1.60, 1.60 to <1.65, 1.65 to <1.70, 1.70 to <1.75, and  $\geq$ 1.75 meters), BMI at age 18 years (<18.5, 18.5 to <20, 20 to <22.5, 22.5 to <25, 25.0 to <30,  $\geq$ 30.0 kg/m<sup>2</sup>), weight change since age 18 years (continuous), smoking (never, past, current 1-14/day, current 15-24/day, current  $\geq$ 25/day), physical activity (quintiles of MET-hr per week, missing), oral contraceptive use (never, < 2 years, 2 to <5 years, 5 to <10 years,  $\geq$ 10 years), alcohol intake (g/day, quintiles), total energy intake (kcal/day, quintiles), age at menarche (<12, 12, 13, 14, >14 years), parity and age at first birth (nulliparous, parity  $\leq$ 2 and age at first birth <25 years, parity  $\leq$ 2 and age at first birth  $\geq$ 30 years, parity  $\geq$ 5 and age at first birth  $\geq$ 25 years). In postmenopausal women, we additionally adjusted for age at menopause, and postmenopausal hormone use, age at menopause $\leq$ 50 years and past postmenopausal hormone use, age at menopause $\geq$ 50 years and past postmenopausal hormone use, age at menopause $\geq$ 50 years and past postmenopausal hormone use, age at menopause $\geq$ 50 years and past postmenopausal hormone use, age at menopause $\geq$ 50 years and current postmenopausal hormone use, missing).

Table S3: Hazard ratios and 95% confidence intervals of subgroups of fruit and vegetable consumption in relation to incident invasive breast cancer among pre- and postmenopausal women in Nurses' Health Study and Nurses' Health Study II.

			Consumption Lev	vels		<b>P</b> trend
Green leafy vegetable intake						
Amount of intake	≤2	>2 to 4	>4 to 6	>6 servings/week to 1	>1 servings/day	
	servings/week	servings/week	servings/week	serving/day		
Premenopausal breast cancer	-	-	-			
No. of cases/person-years in NHS	296/172,178	236/125,139	136/71,767	73/35,883	74/36,754	
No. of cases/person-years in NHSII	332/254,636	419/315,414	360/221,754	130/97,638	316/206,651	
Model 1	1	0.91 (0.81-1.02)	0.95 (0.84-1.07)	0.91 (0.78-1.07)	0.90 (0.79-1.03)	0.21
Model 2	1	0.90 (0.80-1.01)	0.93 (0.82-1.06)	0.88 (0.75-1.04)	0.88 (0.76-1.01)	0.12
Postmenopausal breast cancer						
No. of cases/person-years in NHS	1,060/332,349	1,810/485,955	1,650/433,098	617/164,592	1,249/319,967	
No. of cases/person-years in NHSII	164/74,909	301/132,496	279/125,351	98/51.032	343/144,726	
Model 1	1	1.06 (0.99-1.14)	1.06 (0.98-1.14)	1.04 (0.94-1.14)	1.08 (1.00-1.16)	0.16
Model 2	1	0.98 (0.91-1.05)	0.94 (0.87-1.02)	0.92 (0.83-1.01)	0.94 (0.86-1.02)	0.06
Yellow/orange vegetable intake	-		(	(	()	
Amount of intake	<2	>2 to 3	>3 to 4	>4 to 5 servings/week	>5	
	servings/week	servings/week	servings/week	8	servings/week	
Premenopausal breast cancer						
No. of cases/person-years in NHS	532/288,256	140/66.547	70/46.508	30/15,240	45/27,955	
No. of cases/person-years in NHSII	941/683,018	279/187,577	169/102,859	67/58,502	101/64,173	
Model 1	1	0.97 (0.87-1.08)	0.96 (0.83-1.10)	0.82 (0.67-1.01)	0.99 (0.83-1.18)	0.28
Model 2	1	0.97 (0.87-1.08)	0.96 (0.84-1.11)	0.83 (0.67-1.02)	1.01 (0.85-1.20)	0.44
Postmenopausal breast cancer						
No. of cases/person-years in NHS	3,326/909,868	1,454/376,883	814/227,859	413/107,156	386/117.816	
No. of cases/person-years in NHSII	665/299,497	244/108,803	140/58,058	65/29,438	71/32,730	
Model 1	1	1.00 (0.95-1.06)	0.96 (0.89-1.03)	0.98 (0.89-1.08)	0.87 (0.79-0.96)	0.01
Model 2	1	0.98 (0.92-1.04)	0.94 (0.87-1.01)	0.96 (0.87-1.06)	0.87 (0.79-0.97)	0.006
Tomato intake	•	0.90 (0.92 1.0.9)				0.000
Amount of intake	<2	>2 to 4	>4 to 6	>6 servings/week to 1	>1 servings/day	
	servings/week	servings/week	servings/week	serving/day	y i sei (ings/ duj	
Premenopausal breast cancer	ser (mgs, week	ser (mgs, treen	ser mgs, ween	Ser ( hig) dag		
No. of cases/person-years in NHS	252/153,197	317/164,769	146/76,485	55/31,523	39/16,804	
No. of cases/person-years in NHSII	378/301,669	527/345,220	360/255,711	110/63,693	182/129,745	
Model 1	1	1.00 (0.90-1.11)	0.95 (0.84-1.07)	1.06 (0.89-1.26)	1.02 (0.88-1.20)	0.86
Model 2	1	1.00 (0.90-1.11)	0.95 (0.84-1.07)	1.07 (0.89-1.27)	1.05 (0.89-1.24)	0.66
Postmenopausal breast cancer	1	1.00 (0.70-1.11)	0.75 (0.04-1.00)	1.07 (0.07-1.27)	1.05 (0.07-1.24)	0.00
No. of cases/person-years in NHS	1,318/387,236	2,664/721,674	1,568/410,922	418/113,717	421/103,785	
No. of cases/person-years in NHSII	248/118,173	461/203,895	296/126.619	59/32,292	121/47,517	
Model 1	240/110,1/J 1	,		1.03 (0.93-1.14)	1.14 (1.03-1.25)	0.02
	1	1.04 (0.98-1.11)	1.07 (1.00-1.14)			
Model 2	1	1.00 (0.94-1.07)	1.01 (0.94-1.08)	0.99 (0.89-1.10)	1.06 (0.95-1.17)	0.52

Cruciferous vegetable intake						
Amount of intake	≤2	>2 to 3	>3 to 4	>4 to 5 servings/week	>5	
	servings/week	servings/week	servings/week	-	servings/week	
Premenopausal breast cancer						
No. of cases/person-years in NHS	473/266,916	129/62,156	90/53,754	45/18,941	79/42,605	
No. of cases/person-years in NHSII	734/525,813	316/207,431	205/139,501	121/85,083	181/138,312	
Model 1	1	0.95 (0.85-1.06)	0.88 (0.77-1.00)	0.91 (0.77-1.07)	0.86 (0.75-0.99)	0.01
Model 2	1	0.95 (0.85-1.07)	0.88 (0.77-1.01)	0.92 (0.78-1.09)	0.89 (0.78-1.03)	0.05
Postmenopausal breast cancer						
No. of cases/person-years in NHS	2,352/663,875	1,517/388,306	1,055/288,503	638/163,748	830/234,901	
No. of cases/person-years in NHSII	459/203,641	260/114,196	187/79,933	124/50,438	155/80,317	
Model 1	1	1.02 (0.96-1.08)	0.97 (0.91-1.04)	1.01 (0.93-1.09)	0.91 (0.85-0.98)	0.02
Model 2	1	0.98 (0.92-1.04)	0.94 (0.87-1.00)	0.96 (0.88-1.04)	0.89 (0.83-0.96)	0.003
Other vegetable intake						
Amount of intake	≤2	>2 to 4	>4 to 6	>6 servings/week to 1	>1 servings/day	
	servings/week	servings/week	servings/week	serving/day		
Premenopausal breast cancer	e	U	C	2 9		
No. of cases/person-years in NHS	129/70,780	287/154,519	190/109,370	100/46,502	111/63,380	
No. of cases/person-years in NHSII	123/93,154	400/285,670	433/281,685	149/105,699	452/329,971	
Model 1	1	0.94 (0.81-1.09)	0.92 (0.79-1.07)	0.96 (0.80-1.14)	0.87 (0.74-1.01)	0.09
Model 2	1	0.94 (0.81-1.09)	0.93 (0.79-1.09)	0.97 (0.81-1.17)	0.90 (0.76-1.06)	0.36
Postmenopausal breast cancer			· · ·	· · · · · ·		
No. of cases/person-years in NHS	381/126,589	1,759/482,679	1,986/529,336	773/200,333	1,494/400,691	
No. of cases/person-years in NHSII	80/33,157	282/123,184	313/140,707	114/56,723	396/174,755	
Model 1	1	1.07 (0.96-1.18)	1.06 (0.95-1.17)	1.07 (0.95-1.20)	1.04 (0.94-1.15)	0.82
Model 2	1	1.01 (0.91-1.12)	0.99 (0.89-1.10)	0.99 (0.88-1.12)	0.96 (0.86-1.07)	0.15
Fruits and vegetables high in vitamin C						
Amount of intake	≤2	>2 to 4	>4 to 6	>6 servings/week to 1	>1 servings/day	
	servings/week	servings/week	servings/week	serving/day		
Premenopausal breast cancer	6	6	C	2,		
No. of cases/person-years in NHS	207/112,013	215/124,924	160/87,782	72/35,556	163/84,282	
No. of cases/person-years in NHSII	219/164,852	473/335,703	384/257,696	127/87,425	354/250,527	
Model 1	1	0.88 (0.78-1.00)	0.88 (0.77-1.00)	0.88 (0.74-1.04)	0.84 (0.74-0.96)	0.05
Model 2	1	0.89 (0.78-1.00)	0.89 (0.77-1.01)	0.89 (0.75-1.06)	0.87 (0.75-1.00)	0.17
Postmenopausal breast cancer		· /				
No. of cases/person-years in NHS	543/172,350	1,461/396,223	1,583/426,530	728/179,381	2,078/565,166	
No. of cases/person-years in NHSII	137/56,629	314/144,779	306/134,558	122/49,387	306/143,173	
Model 1	1	1.02 (0.93-1.12)	1.01 (0.92-1.10)	1.10 (0.99-1.22)	0.97 (0.89-1.06)	0.19
Model 2	1	0.95 (0.87-1.04)	0.91 (0.83-1.00)	1.00 (0.90-1.11)	0.89 (0.81-0.97)	0.01

<b>Fruits and vegetables high in α-caroten</b> Amount of intake	<u>e</u>	2 to <4	1 to <2	2 to <3 servings/week	>3	
Amount of intake	<2 servings/month	2 to <4 servings/month	servings/week	2 to <3 servings/week	≥⊃ servings/week	
Premenopausal breast cancer	servings/monun	servings/monut	servings/week		servings/week	
No. of cases/person-years in NHS	81/39,155	262/134,924	263/150.031	65/33,330	143/85,978	
No. of cases/person-years in NHSII	224/164,350	411/303,726	479/328.370	213/140.953	230/158,640	
Model 1	1	0.95 (0.83-1.09)	0.91 (0.79-1.04)	0.86 (0.73-1.01)	0.91 (0.78-1.07)	0.19
Model 2	1	0.96 (0.83-1.10)	0.92 (0.80-1.05)	0.87 (0.74-1.03)	0.94 (0.80-1.10)	0.38
Postmenopausal breast cancer				((())))))))))))))))))))))))))))))))))))		
No. of cases/person-years in NHS	546/135,972	1,685/462,945	2,197/596,329	1,022/268,715	941/274,080	
No. of cases/person-years in NHSII	153/67,840	308/134,102	392/172,704	173/84,613	159/69.256	
Model 1	1	0.93 (0.85-1.01)	0.92 (0.85-1.00)	0.89 (0.81-0.98)	0.87 (0.79-0.96)	0.01
Model 2	1	0.92 (0.84-1.00)	0.91 (0.83-0.99)	0.87 (0.79-0.95)	0.88 (0.79-0.97)	0.02
Fruits and vegetables high in β-caroten	e		· · ·	· · · · ·	· · ·	
Amount of intake	≤2	>2 to 4	>4 to 6	>6 servings/week to 1	>1 servings/day	
	servings/week	servings/week	servings/week	serving/day		
Premenopausal breast cancer						
No. of cases/person-years in NHS	190/109,172	181/107,273	166/84,315	78/37,300	202/106,477	
No. of cases/person-years in NHSII	139/111,356	306/227,124	344/238,571	148/102,195	620/416,917	
Model 1	1	0.87 (0.75-1.01)	0.90 (0.77-1.04)	0.89 (0.74-1.06)	0.85 (0.74-0.98)	0.10
Model 2	1	0.86 (0.74-0.99)	0.88 (0.75-1.02)	0.87 (0.72-1.04)	0.83 (0.71-0.96)	0.06
Postmenopausal breast cancer						
No. of cases/person-years in NHS	465/154,139	1,094/308,314	1,449/389,447	750/189,838	2,635/697,909	
No. of cases/person-years in NHSII	73/29,152	185/85,075	243/106,655	121/53,495	563/254,147	
Model 1	1	1.02 (0.92-1.13)	1.03 (0.93-1.14)	1.08 (0.97-1.21)	1.02 (0.92-1.12)	0.94
Model 2	1	0.93 (0.84-1.03)	0.90 (0.81-1.00)	0.93 (0.83-1.05)	0.86 (0.78-0.95)	0.002
Fruits and vegetables high in lutein						
Amount of intake	≤1	>1 to 3	>3 to 4	>1 to 3 servings/week	>3	
	serving/month	servings/month	servings/month		servings/week	
Premenopausal breast cancer						
No. of cases/person-years in NHS	89/44,900	183/101,146	202/104,877	236/128,566	105/62,231	
No. of cases/person-years in NHSII	436/342,771	533/353,529	244/171,242	287/189,370	57/39,041	
Model 1	1	1.00 (0.89-1.12)	1.06 (0.93-1.21)	0.94 (0.83-1.07)	0.99 (0.82-1.19)	0.60
Model 2	1	0.97 (0.86-1.09)	1.01 (0.88-1.15)	0.89 (0.78-1.01)	0.93 (0.77-1.12)	0.27
Postmenopausal breast cancer						
No. of cases/person-years in NHS	667/191,615	1,659/441,381	1,117/313,276	2,455/640,277	488/149,399	
No. of cases/person-years in NHSII	266/125,208	375/166,005	160/78,083	325/135,210	59/23,987	
Model 1	1	1.07 (0.99-1.15)	1.04 (0.95-1.13)	1.08 (1.00-1.16)	1.01 (0.90-1.12)	0.94
Model 2	1	1.03 (0.96-1.12)	1.01 (0.92-1.10)	1.01 (0.94-1.09)	0.97 (0.87-1.09)	0.38

Model 1 stratified by cohort, calendar year, and age in months.

Model 2 stratified by cohort, calendar year, and age in months and adjusted for family history of breast cancer (yes, no), history of benign breast disease (yes, no), height (<1.60, 1.60 to <1.65, 1.65 to <1.70, 1.70 to <1.75, and  $\geq$ 1.75 meters), BMI at age 18 years (<18.5, 18.5 to <20, 20 to <22.5, 22.5 to <25, 25.0 to <30,  $\geq$ 30.0 kg/m<sup>2</sup>), weight change since age 18 years (continuous), smoking (never, past, current 1-14/day, current 15-24/day, current  $\geq$ 25/day), physical activity (quintiles of MET-hr per week, missing), oral contraceptive use (never, < 2 years, 2 to <5 years, 5 to <10 years), alcohol intake (g/day, quintiles), total energy intake (kcal/day, quintiles), age at menarche (<12, 12, 13, 14, >14 years), parity and age at first birth (nulliparous, parity  $\leq$ 2 and age at first birth <25 years, parity $\leq$ 2 and age at first birth

25 to <30 years, parity  $\le 2$  and age at first birth  $\ge 30$  years, parity 3 to 4 and age at first birth <25 years, parity 3 to 4 and age at first birth  $\ge 30$  years, parity  $\ge 5$  and age at first birth  $\ge 25$  years, parity  $\ge 5$  and age at first birth  $\ge 25$  years). In postmenopausal women, we additionally adjusted for age at menopause, and postmenopausal hormone use (age at menopause<50 years and never postmenopausal hormone use, age at menopause $\le 50$  years and never postmenopausal hormone use, age at menopause $\ge 50$  years and past postmenopausal hormone use, age at menopause $\ge 50$  years and never postmenopausal hormone use, age at menopause $\ge 50$  years and past postmenopausal hormone use, age at menopause $\ge 50$  years and current postmenopausal hormone use, missing).

Table S4: Time lagged analyses on breast cancer by estrogen and progesterone receptor status according to fruit and vegetable consumption in pooling data from Nurses' Health Study and Nurses' Health Study II.

Breast cancer subtype	No. of	Total fruit and vegetable	Total fruit intake (per 2	Total vegetable intake
	cases	intake (per 2 servings/day)	servings/day)	(per 2 servings/day)
		HR (95%CI)	HR (95%CI)	HR (95%CI)
0-4 year lag				
Estrogen receptor positive	6,584	0.98 (0.95-1.01)	0.96 (0.91-1.03)	1.00 (0.96-1.05)
Estrogen receptor negative	1,598	0.95 (0.90-1.00)	0.95 (0.85-1.08)	0.90 (0.83-0.97)
P for Heterogeneity		0.23	0.87	0.01
4-8 year lag				
Estrogen receptor positive	6,129	1.00 (0.97-1.03)	1.02 (0.96-1.09)	1.01 (0.97-1.06)
Estrogen receptor negative	1,388	0.91 (0.85-0.97)	0.88 (0.77-1.00)	0.85 (0.78-0.93)
P for Heterogeneity		0.004	0.04	0.0004
8-12 year lag				
Estrogen receptor positive	5,448	0.99 (0.95-1.02)	1.01 (0.94-1.08)	0.97 (0.92-1.01)
Estrogen receptor negative	1,139	0.94 (0.88-1.00)	0.93 (0.80-1.07)	0.92 (0.83-1.01)
P for Heterogeneity		0.19	0.29	0.34
12-16 year lag				
Estrogen receptor positive	4,405	0.94 (0.91-0.98)	0.91 (0.84-0.98)	0.93 (0.88-0.98)
Estrogen receptor negative	877	0.96 (0.89-1.04)	0.89 (0.75-1.05)	0.95 (0.85-1.06)
P for Heterogeneity		0.64	0.84	0.69
0-4 year lag				
Estrogen and progesterone receptor positive	5,399	0.98 (0.95-1.01)	0.98 (0.91-1.04)	1.00 (0.96-1.04)
Estrogen receptor positive and progesterone receptor negative	1,076	1.01 (0.95-1.08)	0.98 (0.84-1.13)	1.03 (0.94-1.13)
Estrogen and progesterone receptor negative	1,406	0.94 (0.89-1.00)	0.93 (0.82-1.06)	0.91 (0.84-0.99)
P for Heterogeneity	,	0.26	0.83	0.09
4-8 year lag				
Estrogen and progesterone receptor positive	5,049	1.01 (0.98-1.04)	1.06 (0.98-1.13)	1.01 (0.97-1.06)
Estrogen receptor positive and progesterone receptor negative	1,008	0.96 (0.89-1.03)	0.89 (0.77-1.04)	0.99 (0.90-1.10)
Estrogen and progesterone receptor negative	1,234	0.91 (0.85-0.97)	0.89 (0.78-1.03)	0.86 (0.78-0.94)
P for Heterogeneity		0.01	0.03	0.005
8-12 year lag				
Estrogen and progesterone receptor positive	4,497	1.00 (0.96-1.04)	1.04 (0.96-1.12)	0.98 (0.93-1.03)
Estrogen receptor positive and progesterone receptor negative	888	0.94 (0.87-1.01)	0.91 (0.77-1.07)	0.92 (0.83-1.03)
Estrogen and progesterone receptor negative	1,017	0.94 (0.87-1.01)	0.90 (0.77-1.05)	0.94 (0.85-1.04)
P for Heterogeneity		0.14	0.12	0.50

12-16 year lag				
Estrogen and progesterone receptor positive	3,664	0.93 (0.89-0.97)	0.90 (0.83-0.98)	0.91 (0.86-0.97)
Estrogen receptor positive and progesterone receptor negative	696	1.02 (0.93-1.11)	0.91 (0.76-1.10)	1.01 (0.89-1.15)
Estrogen and progesterone receptor negative	798	0.96 (0.88-1.04)	0.89 (0.75-1.06)	0.93 (0.83-1.05)
P for Heterogeneity		0.15	0.99	0.30

Stratified by cohort, calendar year, and age in months and adjusted for family history of breast cancer (yes, no), history of benign breast disease (yes, no), height (<1.60, 1.60 to <1.65, 1.65 to <1.70, 1.70 to <1.75, and  $\geq$ 1.75 meters), BMI at age 18 years (<18.5, 18.5 to <20, 20 to <22.5, 22.5 to <25, 25.0 to <30,  $\geq$ 30.0 kg/m<sup>2</sup>), weight change since age 18 years (continuous), smoking (never, past, current 1-14/day, current 15-24/day, current  $\geq$ 25/day), physical activity (quintiles of MET-hr per week, missing), oral contraceptive use (never, <2 years, 2 to <5 years, 5 to <10 years), alcohol intake (g/day, quintiles), total energy intake (kcal/day, quintiles), age at menarche (<12, 12, 13, 14, >14 years), parity and age at first birth (nulliparous, parity  $\leq$ 2 and age at first birth <25 years, parity  $\leq$ 2 and age at first birth >30 years, parity 3 to 4 and age at first birth <25 years, parity  $\leq$ 5 and age at first birth  $\geq$ 50 years, and menopausal status, age at menopause, and postmenopausal hormone use, postmenopausal and age at menopause<50 years and past postmenopausal and age at menopause<50 years and current postmenopausal hormone use, postmenopausal and age at menopause hormone use, postmenopausal hormo

Table S5: Hazard ratios and 95% confidence intervals of fruit and vegetable consumption in relation to incident invasive breast cancer (n=10,911 cases) additionally adjusted for AHEI, animal fat, and fiber intake.

			Consumption Levels			
	1	2	3	4	5	<b>P</b> trend
Total fruit and vegetable intake						
Amount of intake	≤2.5 servings/day	>2.5 to 3.5 servings/day	>3.5 to 4.5 servings/day	>4.5 to 5.5 servings/day	>5.5 servings/day	
No. of cases/person-years in NHS	1,292/457,076	1,683/542,469	1,768/525,605	1,324/376,169	1,544/453,806	
No. of cases/person-years in NHSII	722/450,298	761/452,651	693/405,921	516/281,609	608/363,466	
Model 2	1	0.94 (0.88-1.00)	0.94 (0.88-1.00)	0.95 (0.89-1.02)	0.89 (0.83-0.96)	0.006
Model 2 + AHEI	1	0.94 (0.88-0.99)	0.93 (0.88-1.00)	0.95 (0.88-1.01)	0.88 (0.82-0.95)	0.005
Model 2 + animal fat	1	0.94 (0.88-0.99)	0.94 (0.88-1.00)	0.95 (0.88-1.01)	0.89 (0.82-0.95)	0.005
Model 2 + fiber	1	0.94 (0.88-1.00)	0.95 (0.88-1.02)	0.97 (0.89-1.05)	0.92 (0.83-1.01)	0.21
Total fruit intake						
Amount of intake	$\leq$ 4 servings/week	>4 to 6 servings/week	>6 servings/week to 1.5 servings/day	>1.5 to 2.5 servings/day	>2.5 servings/day	
No. of cases/person-years in NHS	1,023/365,517	963/298,599	2,311/718,399	2,400/682,790	914/289,822	
No. of cases/person-years in NHSII	802/497,615	583/337,772	1,061/612,398	677/391,529	177/114.632	
Model 2	1	1.00 (0.94-1.07)	0.95 (0.90-1.01)	0.99 (0.93-1.05)	0.91 (0.84-0.99)	0.08
Model 2 + AHEI	1	1.00 (0.94-1.07)	0.95 (0.90-1.01)	0.99 (0.92-1.05)	0.91 (0.84-0.99)	0.08
Model $2 + animal$ fat	1	1.00 (0.94-1.07)	0.95 (0.89-1.01)	0.98 (0.92-1.05)	0.91 (0.83-0.99)	0.07
Model $2 + \text{fiber}$	1	1.01 (0.94-1.08)	0.97 (0.91-1.04)	1.02 (0.95-1.10)	0.97 (0.88-1.07)	0.84
Total vegetable intake	1	1.01 (0.94-1.00)	0.97 (0.91-1.04)	1.02 (0.95-1.10)	0.97 (0.00-1.07)	0.04
Amount of intake	≤1.5 servings/day	>1.5 to 2.5 servings/day	>2.5 to 3.5 servings/day	>3.5 to 4.5 servings/day	>4.5 servings/day	
No. of cases/person-years in NHS	1,155/421,021	2,547/815,680	2,282/651,837	1,034/299,308	593/167,280	
No. of cases/person-years in NHSII	483/308,753	1,034/610,319	898/518.716	487/287.107	398/229.049	
Model 2	1	0.93 (0.88-0.99)	0.94 (0.88-1.00)	0.89 (0.82-0.96)	0.91 (0.84-1.00)	0.03
Model 2 + AHEI	1	0.93 (0.87-0.99)	0.93 (0.87-1.00)	0.88 (0.82-0.96)	0.91 (0.83-0.99)	0.03
Model $2 + animal$ fat	1	0.93 (0.88-0.99)	0.93 (0.88-1.00)	0.89 (0.82-0.96)	0.91 (0.83-0.99)	0.03
Model $2 + $ fiber	1	0.94 (0.88-1.00)	0.95 (0.88-1.02)	0.91 (0.84-1.00)	0.95 (0.86-1.06)	0.45
Fruit juice Intake		(,	,		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Amount of intake	≤1 serving/week	>1 to 4 servings/week	>4 to 6 servings/week	>6 servings/week to 1.5	>1.5 servings/day	
	- 6	C	U	servings/day	6 5	
No. of cases/person-years in NHS	800/278,959	1,497/462,795	1,140/356,775	2,237/720,158	1,908/520,020	
No. of cases/person-years in NHSII	464/301,403	994/586,374	468/271,764	704/401,579	670/392,752	
Model 2	1	0.99 (0.92-1.06)	1.02 (0.94-1.10)	0.99 (0.93-1.06)	1.03 (0.96-1.10)	0.31
Model 2 + AHEI	1	0.99 (0.92-1.06)	1.02 (0.95-1.10)	0.99 (0.93-1.06)	1.03 (0.96-1.11)	0.30
Model 2 + animal fat	1	0.99 (0.92-1.06)	1.02 (0.94-1.10)	0.99 (0.93-1.06)	1.03 (0.96-1.10)	0.30
Model 2 + fiber	1	0.99 (0.92-1.06)	1.02 (0.95-1.10)	0.99 (0.93-1.06)	1.03 (0.96-1.11)	0.26

Green leafy vegetable intake						
Amount of intake	≤2 servings/week	>2 to 4 servings/week	>4 to 6 servings/week	>6 servings/week to 1 serving/day	>1 servings/day	
No. of cases/person-years in NHS	1,500/567,610	2,163/659,719	1,848/534,085	723/213,002	1,367/372,934	
No. of cases/person-years in NHSII	604/403,641	870/538,425	757/415,130	284/177,224	785/419,358	
Model 2	1	0.95 (0.90-1.01)	0.93 (0.87-0.99)	0.92 (0.85-0.99)	0.93 (0.87-0.99)	0.03
Model 2 + AHEI	1	0.95 (0.90-1.01)	0.93 (0.87-0.99)	0.92 (0.85-0.99)	0.93 (0.86-0.99)	0.03
Model 2 + animal fat	1	0.95 (0.90-1.01)	0.93 (0.87-0.99)	0.92 (0.85-0.99)	0.93 (0.87-0.99)	0.03
Model 2 + fiber	1	0.96 (0.90-1.02)	0.94 (0.88-1.00)	0.94 (0.86-1.01)	0.95 (0.88-1.02)	0.21
Yellow/orange vegetable intake		· ·	· · · ·	· · · · ·		
Amount of intake	≤2 servings/week	>2 to 3 servings/week	>3 to 4 servings/week	>4 to 5 servings/week	>5 servings/week	
No. of cases/person-years in NHS	4,108/1,305,886	1,657/470,261	931/293,064	457/129,100	458/156,630	
No. of cases/person-years in NHSII	1,953/1,188,668	631/352,322	361/191,770	154/104,970	201/116,123	
Model 2	1	0.98 (0.93-1.03)	0.95 (0.89-1.01)	0.93 (0.85-1.01)	0.91 (0.84-0.99)	0.004
Model 2 + AHEI	1	0.98 (0.93-1.03)	0.95 (0.89-1.01)	0.92 (0.85-1.01)	0.91 (0.83-0.99)	0.004
Model 2 + animal fat	1	0.98 (0.93-1.03)	0.95 (0.89-1.01)	0.92 (0.85-1.01)	0.91 (0.83-0.99)	0.003
Model 2 + fiber	1	0.99 (0.94-1.04)	0.96 (0.90-1.03)	0.95 (0.86-1.03)	0.94 (0.85-1.02)	0.07
Tomato intake			·	· · ·		
Amount of intake	≤2 servings/week	>2 to 4 servings/week	>4 to 6 servings/week	>6 servings/week to 1 serving/day	>1 servings/day	
No. of cases/person-years in NHS	1,675/595,564	3,132/950,188	1,815/518,863	498/157,262	479/128,381	
No. of cases/person-years in NHSII	750/511,096	1,197/658,061	794/456,451	202/115,244	357/212,870	
Model 2	1	1.02 (0.97-1.07)	1.03 (0.97-1.09)	1.02 (0.93-1.11)	1.06 (0.98-1.15)	0.21
Model 2 + AHEI	1	1.02 (0.97-1.07)	1.03 (0.97-1.09)	1.02 (0.93-1.11)	1.06 (0.98-1.16)	0.19
Model 2 + animal fat	1	1.02 (0.97-1.07)	1.03 (0.97-1.09)	1.02 (0.93-1.11)	1.06 (0.98-1.15)	0.20
Model 2 + fiber	1	1.03 (0.98-1.08)	1.05 (0.99-1.11)	1.04 (0.96-1.14)	1.10 (1.01-1.20)	0.03
Cruciferous vegetable intake						
Amount of intake	≤2 servings/week	>2 to 3 servings/week	>3 to 4 servings/week	>4 to 5 servings/week	>5 servings/week	
No. of cases/person-years in NHS	3,030/1,024,004	1,729/476,923	1,190/364,159	705/192,392	955/297,017	
No. of cases/person-years in NHSII	1,458/880,950	681/385,353	466/262,993	281/161,688	414/262,876	
Model 2	1	0.97 (0.92-1.02)	0.92 (0.87-0.98)	0.94 (0.87-1.01)	0.90 (0.84-0.96)	0.0002
Model 2 + AHEI	1	0.97 (0.92-1.02)	0.92 (0.87-0.97)	0.94 (0.87-1.00)	0.89 (0.84-0.95)	0.0002
Model 2 + animal fat	1	0.97 (0.92-1.02)	0.92 (0.87-0.98)	0.94 (0.87-1.01)	0.90 (0.84-0.95)	0.0002
Model 2 + fiber	1	0.98 (0.93-1.03)	0.93 (0.87-0.99)	0.95 (0.88-1.02)	0.91 (0.85-0.98)	0.004
Other vegetable intake						
Amount of intake	≤2 servings/week	>2 to 4 servings/week	>4 to 6 servings/week	>6 servings/week to 1 serving/day	>1 servings/day	
No. of cases/person-years in NHS	554/222,662	2,183/694,458	2,286/681,612	912/264,363	1,676/491,969	
No. of cases/person-years in NHSII	251/154,205	821/490,953	905/504,966	320/194,177	1,003/609,606	
Model 2	1	0.99 (0.92-1.07)	0.98 (0.90-1.06)	0.99 (0.90-1.08)	0.94 (0.86-1.02)	0.06
Model 2 + AHEI	1	0.99 (0.92-1.07)	0.98 (0.90-1.06)	0.99 (0.90-1.08)	0.94 (0.86-1.02)	0.06
Model 2 + animal fat	1	0.99 (0.91-1.07)	0.98 (0.90-1.06)	0.99 (0.90-1.08)	0.94 (0.86-1.02)	0.06
Model 2 + fiber	1	1.00 (0.92-1.08)	0.99 (0.91-1.08)	1.01 (0.91-1.11)	0.97 (0.88-1.06)	0.39

Fruits and vegetables high in vitamin (	2					
Amount of intake	≤2 servings/week	>2 to 4 servings/week	>4 to 6 servings/week	>6 servings/week to 1 serving/day	>1 servings/day	
No. of cases/person-years in NHS	821/322,755	1,787/566,451			2,342/688,031	
No. of cases/person-years in NHSII	444/271,768	954/577,239	823/468,741	286/164,045	793/472,149	
Model 2	1	0.94 (0.87-1.00)	0.91 (0.85-0.97)	0.95 (0.87-1.03)	0.89 (0.82-0.95)	0.004
Model 2 + AHEI	1	0.93 (0.87-1.00)	0.91 (0.84-0.97)	0.95 (0.87-1.03)	0.88 (0.82-0.95)	0.004
Model 2 + animal fat	1	0.93 (0.87-1.00)	0.91 (0.84-0.97)	0.95 (0.87-1.03)	0.88 (0.82-0.95)	0.003
Model 2 + fiber	1	0.94 (0.87-1.00)	0.91 (0.85-0.98)	0.96 (0.88-1.05)	0.90 (0.83-0.98)	0.08
Fruits and vegetables high in α-caroten	e					
Amount of intake	<2	2 to <4 servings/month	1 to <2 servings/week	2 to <3 servings/week	≥3 servings/week	
	servings/month					
No. of cases/person-years in NHS	665/191,717	2,070/649,455	2,586/802,189	1,123/316,909	1,162/391,617	
No. of cases/person-years in NHSII	451/284,886	889/529,046	1,033/599,456	471/266,650	456/273,655	
Model 2	1	0.95 (0.88-1.01)	0.92 (0.86-0.99)	0.89 (0.82-0.96)	0.91 (0.84-0.99)	0.02
Model 2 + AHEI	1	0.95 (0.88-1.01)	0.92 (0.86-0.99)	0.89 (0.82-0.96)	0.91 (0.84-0.98)	0.02
Model 2 + animal fat	1	0.95 (0.88-1.01)	0.92 (0.86-0.99)	0.89 (0.82-0.96)	0.91 (0.84-0.98)	0.02
Model 2 + fiber	1	0.95 (0.89-1.02)	0.93 (0.87-1.00)	0.91 (0.83-0.98)	0.93 (0.86-1.02)	0.20
Fruits and vegetables high in β-caroten	e					
Amount of intake	≤2 servings/week	>2 to 4 servings/week	>4 to 6 servings/week	>6 servings/week to 1 serving/day	>1 servings/day	
No. of cases/person-years in NHS	736/301,972	1,381/455,777	1,697/508,135	851/241,899	2,946/847,277	
No. of cases/person-years in NHSII	249/173,435	612/379.126	696/414.291	324/186,699	1,419/800,339	
Model 2	1	0.94 (0.86-1.01)	0.90 (0.83-0.98)	0.92 (0.84-1.01)	0.87 (0.80-0.94)	0.0004
Model 2 + AHEI	1	0.93 (0.86-1.01)	0.90 (0.83-0.97)	0.92 (0.84-1.00)	0.86 (0.80-0.93)	0.0003
Model 2 + animal fat	1	0.93 (0.86-1.01)	0.90 (0.83-0.97)	0.92 (0.84-1.00)	0.87 (0.80-0.94)	0.0003
Model 2 + fiber	1	0.93 (0.86-1.01)	0.90 (0.83-0.98)	0.92 (0.84-1.01)	0.88 (0.81-0.96)	0.008
Fruits and vegetables high in lutein						
Amount of intake	≤1 serving/month	>1 to 3 servings/month	>3 to 4 servings/month	>1 to 3 servings/week	>3 servings/week	
No. of cases/person-years in NHS	797/254,275	1,944/581,492	1,410/457,320	2,820/820,986	630/233,258	
No. of cases/person-years in NHSII	861/565,092	1,084/622,253	492/299,831	723/389,612	140/76,717	
Model 2	1	1.01 (0.95-1.07)	1.00 (0.93-1.07)	0.97 (0.92-1.04)	0.94 (0.86-1.03)	0.07
Model 2 + AHEI	1	1.01 (0.95-1.07)	1.00 (0.93-1.07)	0.97 (0.91-1.04)	0.94 (0.86-1.03)	0.07
Model 2 + animal fat	1	1.01 (0.95-1.07)	1.00 (0.93-1.07)	0.97 (0.91-1.04)	0.94 (0.86-1.03)	0.07
Model 2 + fiber	1	1.01 (0.95-1.08)	1.01 (0.94-1.08)	0.99 (0.93-1.06)	0.97 (0.88-1.06)	0.33

Model 2 stratified by cohort, calendar year, and age in months and adjusted for family history of breast cancer (yes, no), history of benign breast disease (yes, no), height (<1.60, 1.60 to <1.65, 1.65 to <1.70, 1.70 to <1.75, and  $\ge 1.75$  meters), BMI at age 18 years (<18.5, 18.5 to <20, 20 to <22.5, 22.5 to <25, 25.0 to <30,  $\ge 30.0$  kg/m<sup>2</sup>), weight change since age 18 years (continuous), smoking (never, past, current 1-14/day, current 15-24/day, current  $\ge 25/day$ ), physical activity (quintiles of MET-hr per week, missing), oral contraceptive use (never, < 2 years, 2 to <5 years, 5 to <10 years,  $\ge 10$  years), alcohol intake (g/day, quintiles), total energy intake (kcal/day, quintiles), age at menarche (<12, 12, 13, 14, >14 years), parity and age at first birth (nulliparous, parity  $\le 2$  and age at first birth  $\ge 30$  years, parity  $\le 2$  and age at first birth  $\ge 30$  years, parity  $\ge 5$  and age at first birth  $\ge 50$  years, and menopausal status, age at menopause, and postmenopausal hormone use (premenopausal and age at menopause<50 years and never postmenopausal hormone use, postmenopausal and age at menopause $\ge 50$  years and never postmenopausal hormone use, postmenopausal and age at menopause $\ge 50$  years and never postmenopausal hormone use, postmenopausal and age at menopause $\ge 50$  years and never postmenopausal hormone use, postmenopausal hormo

Table S6: Hazard ratios and 95% confidence intervals of fruit and vegetable consumption in relation to incident invasive breast cancer among women in the Nurses' Health Study and Nurses' Health Study II separately.

			Consumption Levels			<b>P</b> trend	<b>P</b> heterogeneity
Total fruit and vegetable intake							
Amount of intake	≤2.5 servings/day	>2.5 to 3.5 servings/day	>3.5 to 4.5	>4.5 to 5.5	>5.5		
			servings/day	servings/day	servings/day		
The Nurses' Health Study							
No. of cases/person-years in NHS	1,292/457,076	1,683/542,469	1,768/525,605	1,324/376,169	1,544/453,806		
Model 1	1	0.98 (0.91-1.05)	1.00 (0.93-1.08)	1.01 (0.93-1.09)	0.96 (0.89-1.03)	0.38	
Model 2	1	0.94 (0.88-1.02)	0.96 (0.89-1.03)	0.96 (0.88-1.04)	0.90 (0.83-0.98)	0.05	
The Nurses' Health Study II							
No. of cases/person-years in NHSII	722/450,298	761/452,651	693/405,921	516/281,609	608/363,466		
Model 1	1	0.97 (0.87-1.07)	0.95 (0.86-1.06)	0.99 (0.89-1.11)	0.91 (0.81-1.01)	0.13	
Model 2	1	0.93 (0.84-1.03)	0.91 (0.81-1.01)	0.94 (0.83-1.06)	0.87 (0.77-0.98)	0.05	0.56
Total fruit intake							
Amount of intake	≤4 servings/week	>4 to 6 servings/week	>6 servings/week to	>1.5 to 2.5	>2.5		
			1.5 servings/day	servings/day	servings/day		
The Nurses' Health Study							
No. of cases/person-years in NHS	1,023/365,517	963/298,599	2,311/718,399	2,400/682,790	914/289,822		
Model 1	1	1.05 (0.96-1.14)	0.99 (0.92-1.07)	1.04 (0.97-1.12)	0.94 (0.86-1.03)	0.27	
Model 2	1	1.03 (0.94-1.12)	0.97 (0.90-1.05)	1.03 (0.95-1.12)	0.95 (0.86-1.05)	0.49	
The Nurses' Health Study II							
No. of cases/person-years in NHSII	802/497,615	583/337,772	1,061/612,398	677/391,529	177/114,632		
Model 1	1	0.99 (0.89-1.11)	0.97 (0.88-1.06)	0.95 (0.85-1.05)	0.86 (0.73-1.01)	0.05	
Model 2	1	0.97 (0.87-1.08)	0.93 (0.84-1.02)	0.91 (0.81-1.01)	0.84 (0.71-1.00)	0.02	0.18
Total vegetable intake							
Amount of intake	≤1.5 servings/day	>1.5 to 2.5 servings/day	>2.5 to 3.5	>3.5 to 4.5	>4.5		
	с ,	Ç.,	servings/day	servings/day	servings/day		
The Nurses' Health Study							
No. of cases/person-years in NHS	1,155/421,021	2,547/815,680	2,282/651,837	1,034/299,308	593/167,280		
Model 1	1	0.98 (0.91-1.05)	1.03 (0.95-1.10)	0.98 (0.89-1.06)	1.00 (0.90-1.10)	0.91	
Model 2	1	0.93 (0.86-1.00)	0.95 (0.88-1.03)	0.90 (0.82-0.98)	0.91 (0.82-1.01)	0.10	
The Nurses' Health Study II			. ,	. ,	. /		
No. of cases/person-years in NHSII	483/308,753	1,034/610,319	898/518.716	487/287.107	398/229,049		
Model 1	1	0.99 (0.89-1.10)	0.96 (0.86-1.08)	0.92 (0.81-1.05)	0.95 (0.83-1.09)	0.25	
Model 2	1	0.94 (0.84-1.05)	0.91 (0.80-1.02)	0.87 (0.76-1.00)	0.92 (0.79-1.07)	0.23	0.69
	1	0.94(0.04-1.03)	0.91 (0.00-1.02)	0.87 (0.70-1.00)	0.32(0.73-1.07)	0.10	0.09

Model 1 stratified by calendar year, and age in months.

Model 2 stratified by calendar year and age in months and adjusted for family history of breast cancer (yes, no), history of benign breast disease (yes, no), height (<1.60, 1.60 to <1.65, 1.65 to <1.70, 1.70 to <1.75, and  $\ge 1.75$  meters), BMI at age 18 years (<18.5, 18.5 to <20, 20 to <22.5, 22.5 to <25, 25.0 to <30,  $\ge 30.0$  kg/m<sup>2</sup>), weight change since age 18 years (continuous), smoking (never, past, current 1 to 14/day, current 15 to 24/day, current  $\ge 25/day$ ), physical activity (quintiles of MET-hr per week, missing), oral contraceptive use (never, < 2 years, 2 to <5 years, 5 to <10 years,  $\ge 10$  years), alcohol intake (g/day, quintiles), total energy intake (kcal/day, quintiles), age at menarche (<12, 12, 13, 14, >14 years), parity and age at first birth (nulliparous, parity  $\le 2$  and age at first birth  $\ge 30$  years, parity 3 to 4 and age at first birth  $\ge 5$  to <30 years, parity 3 to 4 and age at first birth  $\ge 30$  years, parity 3 to 4 and age at first birth  $\ge 30$  years, parity 3 to 4 and age at first birth  $\ge 30$  years, parity  $\ge 10$  years,  $\ge 10$  year

parity  $\geq$ 5 and age at first birth <25 years, parity  $\geq$ 5 and age at first birth  $\geq$ 25 years), and menopausal status, age at menopausa, normone use (premenopausal, postmenopausal and age at menopause<50 years and past postmenopausal hormone use, postmenopausal and age at menopause<50 years and past postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and never postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and never postmenopausal and age at menopause $\geq$ 50 years and never postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and never postmenopausal and age at menopause $\geq$ 50 years and never postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and past postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and past postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and past postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and past postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and past postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and past postmenopausal hormone use, postmenopausal and age at menopause $\geq$ 50 years and current postmenopausal hormone use, missing).